IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

ESTECH SYSTEMS IP, LLC,	§	
	§	
Plaintiff,	§	
	§	
v.	§	Case No. 2:21-cv-00473-JRG-RSP
	§	(Lead Case)
MITEL NETWORKS, INC.,	§	
	§	
Defendant.	§	

<u>MEMORANDUM OPINION AND ORDER</u>

On February 22, 2023, the Court held a hearing to determine the proper construction of the

disputed claim terms in U.S. Patent Nos. 7,068,684 (the "'684 Patent") and 7,123,699 (the "'699

Patent") (collectively, "Asserted Patents"). Having reviewed the arguments made by the parties at

the hearing and in their claim construction briefing (Dkt. Nos. 292, 295, 304)[1], having considered

the intrinsic evidence, and having made subsidiary factual findings about the extrinsic evidence,

the Court hereby issues this Claim Construction Memorandum and Order. *See Phillips v. AWH*

Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc); *see also Teva Pharm. USA, Inc. v. Sandoz,*

Inc., 135 S. Ct. 831, 841 (2015).

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[1] Citations to the parties' filings are to the filing's number in the docket (Dkt. No.) and pin cites
are to the page numbers assigned through ECF.

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I.   BACKGROUND

Plaintiff Estech Systems IP, LLC ("Plaintiff" or "Estech") alleges that Defendants Mitel Networks, Inc., Abbott Laboratories, Fiserv, Inc., Fiserv Solutions, LLC, Randstad US LLC, Randstad Professionals US LLC, Marriott International, Inc., Primoris Services Corporation, Primoris Design & Construction, Inc., First American Financial Corporation, and Republic Title of Texas, Inc. ("Defendants") infringe the '684 Patent and '699 Patent. Shortly before the start of the February 22, 2023 hearing, the Court provided the parties with preliminary constructions with the aim of focusing the parties' arguments and facilitating discussion.

The '684 Patent, titled "Quality of Service in a Voice Over IP Telephone System," was filed on February 1, 2001, and issued on June 27, 2006. The '699 Patent, titled "Voice Mail in a Voice Over IP Telephone System," was filed on August 2, 2002, and issued on October 17, 2006. The '684 Patent and '699 Patent each share common priority to U.S. Patent Application No. 09/775,018, which was filed on February 1, 2001. The '684 Patent and '699 Patent relate "to information processing systems, and in particular, to the use of Voice over IP technology to transmit voice conversations." '699 at 1:10–12, 684 at 1:6–8.

The Abstract of the '684 Patent states:

> An information handling system comprises a TCP/IP network connecting a hub to a multimedia server and the hub to a data server, and the hub to an IP telephony device that is then coupled to a network device. Data sent from the network device is addressed for transmission to the data server and is transmitted through the IP telephony device to the TCP/IP network. The IP telephony device monitors when an amount of data being received over the network falls below a predetermined threshold. If this occurs, the IP telephony device will send a signal to the multimedia server, which will then generate a congestion signal to send to all or selected IP telephony devices in the network to throttle data being received by the IP telephony devices from their respective connected network devices.

Claim 29 of the '684 Patent is an illustrative claim and recites the following elements

(disputed terms in italics):

> 29. In an information handling system comprising a *hub*, a
> multimedia server ("multimedia server") coupled to the *hub*, a
> telephone coupled to the *hub*, a workstation coupled to the *hub*
> through the telephone, and a data server coupled to the *hub*, a
> method comprising the steps of:
>
> transferring data from the workstation to the telephone, wherein the
> data sent from the workstation is addressed for transmission to
> the data server;
>
> communicating audio information between the telephone and the
> multimedia server; and
>
> sufficiently *throttling* the data sent from the workstation to the
> telephone to increase a rate of transfer of the audio information
> during the communicating step, wherein the *throttling* step
> further comprises the step of monitoring an amount of the
> audio information being received by the telephone from the
> multimedia server.

The Abstract of the '699 Patent states:

> In a voice over IP system, an IP telephone includes an LED lamp
> that indicates a voice message has been stored in a remote voice mail
> system. The IP telephone can then access that voice message. The
> message can also be moved from one remote site to another.

Claim 4 of the '699 Patent is an illustrative claim and recites the following elements

(disputed terms in italics):

> 4. An information handling system comprising a first LAN, a second
> LAN, and a WAN coupling the first LAN to the second LAN
> using a network protocol, the system comprising:
>
> *means for sending a request from the first LAN to the second LAN*
> *over the WAN to establish a connection between the first LAN*
> *and the second LAN in response to selection of a voice mail*
> *access input and selection of a direct station select input at a*
> *telephone within the first LAN*, wherein the direct station select
> input identifies a voice mail box within the second LAN;
>
> *means for establishing an audio path over the connection between*
> *the voice mail box and the telephone*; and
>
> *means for playing a voice message stored in the voice mail box over*
> *a speaker in the telephone as a result of sending audio data*
> containing the voice message over the audio path.

II.   APPLICABLE LAW

A. Claim Construction

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) (quotation marks omitted) ("There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.") *cert. granted, judgment vacated,* 135 S. Ct. 1846 (2015).

"The claim construction inquiry . . . begins and ends in all cases with the actual words of the claim." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). "[I]n all aspects of claim construction, 'the name of the game is the claim.'" *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)) *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). First, a term's context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim's meaning, because

claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim

terms can also assist in understanding a term's meaning. *Id*. For example, when a dependent claim

adds a limitation to an independent claim, it is presumed that the independent claim does not

include the limitation. *Id*. at 1314–15.

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* (quoting

Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). "[T]he

specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive;

it is the single best guide to the meaning of a disputed term.'" *Id*. (quoting *Vitronics Corp. v.*

Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*,

299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms,

give a claim term a different meaning than the term would otherwise possess, or disclaim or

disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor's

lexicography governs. *Id*.

The specification may also resolve ambiguous claim terms "where the ordinary and

accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of

the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. But,

"'[a]lthough the specification may aid the court in interpreting the meaning of disputed claim

language, particular embodiments and examples appearing in the specification will not generally

be read into the claims.'" *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir.

1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988));

see also Phillips, 415 F.3d at 1323. "[I]t is improper to read limitations from a preferred

embodiment described in the specification—even if it is the only embodiment—into the claims

absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office ("PTO") and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, "because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.* at 1318; *see also Athletic Alts., Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be "unhelpful as an interpretive resource").

Although extrinsic evidence can also be useful, it is "'less significant than the intrinsic record in determining the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id*. at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition are not helpful to a court. *Id*. Extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id*. The Supreme Court has explained the role of extrinsic evidence in claim construction:

> In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871)

(a patent may be "so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning"). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the "evidentiary underpinnings" of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 574 U.S. 318, 331–32 (2015).

B.   Departing from the Ordinary Meaning of a Claim Term

There are "only two exceptions to [the] general rule" that claim terms are construed according to their plain and ordinary meaning: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution."[2] *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); *see also GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) ("[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal."). The standards for finding lexicography or disavowal are "exacting." *GE Lighting Sols.*, 750 F.3d at 1309.

To act as his own lexicographer, the patentee must "clearly set forth a definition of the disputed claim term," and "clearly express an intent to define the term." *Id.* (quoting *Thorner*, 669 F.3d at 1365); *see also Renishaw*, 158 F.3d at 1249. The patentee's lexicography must appear "with reasonable clarity, deliberateness, and precision." *Renishaw*, 158 F.3d at 1249.

To disavow or disclaim the full scope of a claim term, the patentee's statements in the specification or prosecution history must amount to a "clear and unmistakable" surrender. *Cordis*

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[2] Some cases have characterized other principles of claim construction as "exceptions" to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

Corp. v. Bos. Sci. Corp., 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366

("The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a

claim term by including in the specification expressions of manifest exclusion or restriction,

representing a clear disavowal of claim scope."). "Where an applicant's statements are amenable

to multiple reasonable interpretations, they cannot be deemed clear and unmistakable." *3M*

Innovative Props. Co. v. Tredegar Corp., 725 F.3d 1315, 1326 (Fed. Cir. 2013).

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C.   Means-Plus-Function Limitations

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Where a claim limitation is expressed in "means plus function" language and does not

recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112, ¶ 6.

Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, 35 U.S.C.

§ 112, ¶ 6 mandates that "such a claim limitation 'be construed to cover the corresponding structure

. . . described in the specification and equivalents thereof.'" *Id.* (citing 35 U.S.C. § 112, ¶ 6).

Accordingly, when faced with means-plus-function limitations, courts "must turn to the written

description of the patent to find the structure that corresponds to the means recited in the

[limitations]." *Id*.

Construing a means-plus-function limitation involves multiple steps. "The first step in

construing [a means-plus-function] limitation is a determination of the function of the means-plus-

function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311

(Fed. Cir. 2001). Once a court has determined the limitation's function, "the next step is to

determine the corresponding structure disclosed in the specification and equivalents thereof." *Id.*

A "structure disclosed in the specification is 'corresponding' structure only if the specification or

prosecution history clearly links or associates that structure to the function recited in the claim."

Id. Moreover, the focus of the "corresponding structure" inquiry is not merely whether a structure

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is capable of performing the recited function, but rather whether the corresponding structure is

"clearly linked or associated with the [recited] function." *Id*.

III. THE PARTIES' STIPULATED TERMS

The Parties agreed to the construction of the following terms in their Joint Claim

Construction Chart Pursuant to Rule 4-5(d).

Claim Term/Phrase	Agreed Construction
The preambles of Claims 1, 29, 36, 37, and 47 of the '684 Patent.	The preamble is limiting.
"a telephony device coupled to the hub" ('684 Patent, Claim 1)	"a telephony device communicatively connected to the hub"
"a first network device coupled to the hub" ('684 Patent, Claim 1)	"a first network device communicatively connected to the hub"
"a data server coupled to the hub" ('684 Patent, Claims 29, 36, 37)	"a data server communicatively connected to the hub"
"multimedia server ('multimedia server') coupled to the hub" ('684 Patent, Claims 29, 36, 37)	"a multimedia server communicatively connected to the hub"
"workstation coupled to the hub" ('684 Patent, Claims 29, 36, 37)	"a workstation communicatively connected to the hub"
"reducing a future amount of data from being transferred from the workstation if the amount of data exceeds a predetermined threshold" ('684 Patent, Claim 36)	"reducing a future amount of data from being transferred from the workstation if the amount of data exceeds a predetermined level of data"
"coupling a second LAN to the first LAN over a WAN" ('699 Patent, Claim 1)	"communicatively connecting a second LAN to the first LAN over a WAN"

"coupling an audio path over the channel between the telecommunications device and the voice mail box" ('699 Patent, Claim 1)	"communicatively connecting a path capable of transferring audio information such as voice data over the channel between the telecommunications device and the voice mail box"
"storing a voice mail message in a voice mail box in a voice mail system within a first LAN" ('699 Patent, Claim 1)	Plain and ordinary meaning
"direct station select input" ('699 Patent, Claim 2)	"key on a DSS console having LED lamps and keys that can be programmed by the user to monitor the status of individual stations, trunks or features"
"first LAN", "second LAN", "WAN" ('699 Patent, Claims 1, 2, 4)	"the first LAN, second LAN, and WAN are networks that are distinct from each other"

Dkt. No. 305-1 at 2, 6-7, 10, 13, 30-31, 33, 35, 37-38, 41, 44. In view of the parties' agreement on the proper construction of the identified terms, the Court hereby **ADOPTS** the parties' agreed constructions.

IV.   CONSTRUCTION OF DISPUTED TERMS

The parties dispute the meaning and scope of sixteen terms or phrases in the Asserted Patents. Each dispute is addressed below.

A. "mode level"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"mode level"	Plain and ordinary meaning; no construction necessary.	"indication of whether to throttle in most aggressive mode or least aggressive mode"

1. Analysis

The term "mode level" appears in Asserted Claim 6, 7, 40, 41, 49, 50, 51, and 52 of the

'684 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The parties dispute whether the term "mode level" requires construction.[3]

The specification discloses an information handling system in which data from workstation 106 is sent to data server 104 through telephone 105 and hub 103. Audio information (e.g., voice data) from telephone 105 is transferred to IP Server 101 via hub 103.

Fig. 1
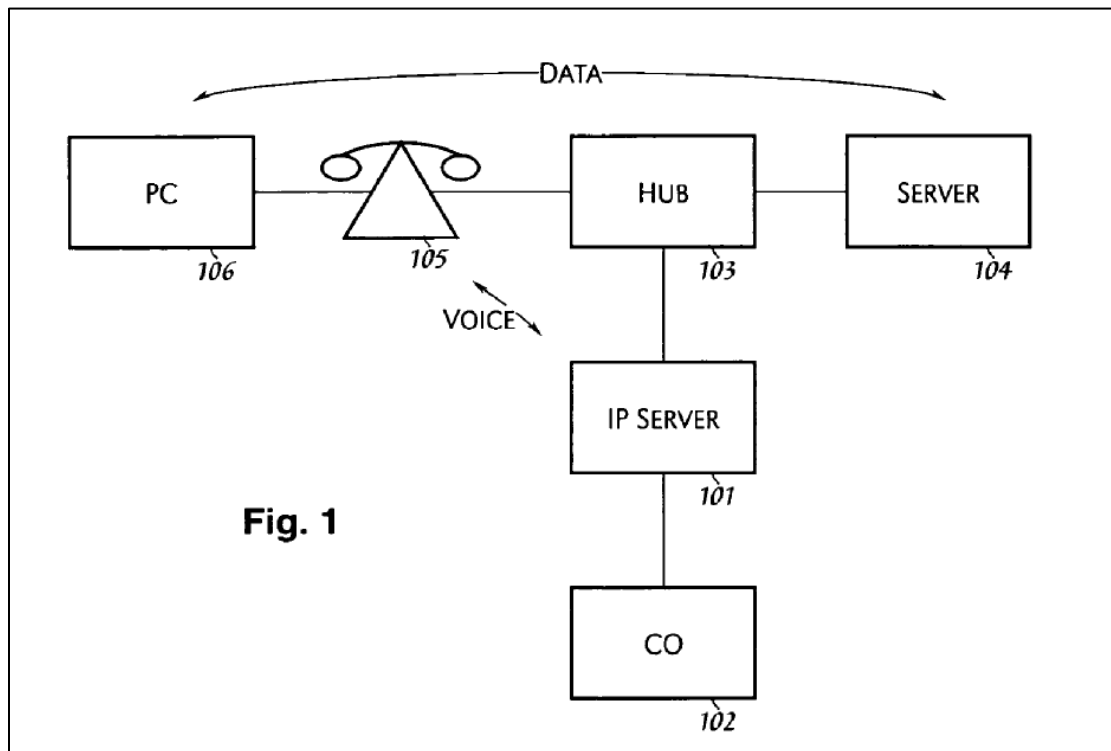
'684 Patent at Figure 1. The specification states that the disclosed system "permits the IP telephony device 105 to throttle the data to/from the workstation 106." '684 Patent at 4:44–46. The purpose of throttling is to limit data flow from the workstation (106 (labeled as a PC in Figure 1)) to a data server (104) (through the telephone), which allows an increase in the amount of data flow between

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[3] The parties' arguments for this disputed term can be found in Plaintiff's Opening Claim Construction Brief (Docket No. 292 at 10-11); Defendants' Responsive Claim Construction Brief (Docket No. 295 at 10-12); and Plaintiff's Reply Claim Construction Brief (Docket No. 304 at 2).

the telephone (105) and the multimedia server (101). *Id.*

With this background, the Court turns to the disputed term "mode level," which does not appear in the specification. However, the specification describes the concept of "mode level" as follows:

> The multimedia server 101 messages to all of the IP telephony devices that they need to throttle-down the workstation data they are receiving using *the most aggressive algorithm* (e.g., using an 80/20 duty cycle where eighty percent of the time the devices are in the jabber state, and twenty percent of the time they are allowing data to flow). As the IP telephony devices stop reporting congestion, the multimedia server 101 may issue *the next lower level or hold-off (e.g., a 50/50 duty cycle). The multimedia server 101 will continue until a point of equilibrium exists* that allows the maximum data flow in the network along with the required multimedia traffic bandwidth.

Id. at 14:63–15:7 (emphasis added). Contrary to Defendants' contention, the specification does not limit the term "mode level" to only "a most aggressive mode" and "a least aggressive mode." Instead, as illustrated above, the specification indicates that there may be multiple mode levels that are less aggressive than the "most aggressive mode:" Accordingly, the Court rejects Defendants' construction, because it would exclude embodiments that use multiple mode levels. *See Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1277 (Fed. Cir. 2008) ("We normally do not interpret claim terms in a way that excludes embodiments disclosed in the specification. However, we have interpreted claims to exclude embodiments of the patented invention where those embodiments are clearly disclaimed in the specification.") (internal quotations omitted).

Moreover, the term "mode level" is first recited in dependent Claim 6, which recites "wherein the throttling signal includes a mode level in which the throttling circuitry should operate." Subsequent dependent claims identify "a most aggressive mode" (*e.g.*, Claims 8 and 9) and "a least aggressive mode" (*e.g.*, Claims 10 and 11) as different mode levels. "Under the doctrine of claim differentiation, dependent claims are presumed to be of narrower scope than the

independent claims from which they depend." *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1242 (Fed. Cir. 2003). Defendants' construction violates this doctrine, because the term "mode level" is broader than the "most aggressive mode" and "least aggressive mode" recited in the dependent claims.

Defendants argue that the only pertinent uses of the phrase "mode" are to describe something as either being in "Most Aggressive Mode" or "Least Aggressive Mode." (Dkt. No. 295 at 10) (citing '684 Patent at 13:44–49, Figures 10, 12A, 12B). According to Defendants, Plaintiff should be held to two-mode algorithm for throttling because it is described in the specification, and recited in the identified dependent claims. (Dkt. No. 295 at 11). The Court disagrees. As illustrated above, Defendants fail to acknowledge the specification's disclosure of multiple mode levels (*i.e.*, not only most aggressive and least aggressive). In addition, dependent Claim 6 recites "*a* mode level" without requiring that the mode level be limited to only most-aggressive and least-aggressive mode levels. Only dependent Claims 8-11 require the specific mode levels that Defendants improperly seek to import into Claim 6. Furthermore, Defendants identify no disclaimer or lexicography to support their construction. Accordingly, the Court rejects Defendants' construction.

2. Court's Construction

For the reasons set forth above, the term **"model level"** is given its **plain and ordinary meaning.**

B. "hub"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"hub"	Plain and ordinary meaning; no construction necessary.	Plain and ordinary meaning; a hub is not a switch.

1.   Analysis

The term "hub" appears in Asserted Claims 1, 29, 30, 36, and 37 of the '684 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The parties dispute whether a "switch" would fall within the scope of the recited "hub."[4]

Defendants argue that the plain and ordinary meaning of that term does not include a "switch." (Dkt. No. 295 at 12). Defendants contend that the specification refers to a "hub" when describing the components of the network elements, but does not provide a description of what a "hub" is. *Id.* Defendants also contend that the patentees never recited that the claimed "information handling system" includes a "switch," despite describing that the "IP telephony device will contain two separate media access controllers ('MACs') configured to provide a two-port, layer 2 Ethernet switch." *Id.* (citing '684 Patent at 2:19–30).

Defendants further argue that the distinction between a "hub" and routing hardware is also reflected in the figures. (Dkt. No. 295 at 12-13) (citing '684 Patent at Figure 3). According to Defendants, the intrinsic record makes clear that a "hub" is not a "switch" or a "router." (Dkt. No. 295 at 14). Finally, Defendants contend that extrinsic evidence confirms that a "hub" is a specific piece of network hardware that is different from a switch. *Id.* at 15-17 (citing Dkt. No. 295-3 at 32:10–33:1, 98:2–99:4, 120:4–120:17; Dkt. No. 295-4 at 2 (Estech recommending "installation of a three-port hub to bypass the phone's built-in two-port switch"); Dkt. No. 295-5 citing (Hansen Dep. Ex. 13 at 148, 151); Dkt. No. 291-3 at 6; Dkt. No. 291-4 at 5; Dkt. No. 295-6 at 4-5; Dkt.

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[4] The parties' arguments for this disputed term can be found in Plaintiff's Opening Claim Construction Brief (Docket No. 292 at 15-21); Defendants' Responsive Claim Construction Brief (Docket No. 295 at 12-17); and Plaintiff's Reply Claim Construction Brief (Docket No. 304 at 2-4).

No. 295-7 at 4; Dkt. No. 295-8 at 4).

Starting with the claim language, the term "hub" appears in the preamble of independent

Claims 29, 36, and 37:

> 29. In an information handling system comprising a hub, a multimedia server ("multimedia server") coupled to the hub, a telephone coupled to the hub, a workstation coupled to the hub through the telephone, and a data server coupled to the hub, a method comprising the steps of:

The claim language indicates that the "hub" couples the "multimedia server," "telephone,"

"workstation" ("through the telephone"), and "data server." Defendants correctly argue that the

specification does not explicitly describe the "hub" as a "switch." The specification also describes

that the recited "IP telephony device 105 contains the ability to perform layer-2 switching between

two Ethernet ports in the telephony device for total control over voice versus data quality of service

in accordance with the present invention." '684 Patent at 10:28–33. However, the specification

does not exclude switches from the "hub" term. Instead, the description of the hub is consistent

with the claim language of communicatively connecting devices. For example, Figure 1 depicts

hub 103 coupling IP server 101 (also referred to as "multimedia server 101"), IP telephone 105,

workstation PC 106 (through IP telephone 105), and data server 104. *See* '684 Patent at 3:63–4:12,

Figure 1.

Moreover, the intrinsic evidence indicates that the patentees intended to include "switches"

within the scope of the term "hub." During prosecution, the examiner rejected the pending claims

in view of the "Chen" prior art reference. The examiner specifically identified "switch 90" in Chen

as disclosing the claimed "hub," as follows:

> Regards to claims 38 and 56, Chen teaches a system comprising: a Hub (Fig.1a, switch 90), a multimedia server (Fig. 1a, 92), a telephony device (telephone in 124) coupled to the hub (Fig. 1a, 90), and a work station coupled to the hub through the telephony device (Fig. 1a, work station 70c coupled to the hub 90 via telephone).

(Dkt. No. 292-5 at 5). This indicates that a person of ordinary skill in the art would have understood that the term "hub," as recited in the claims, includes switches.

Finally, the Court finds that the extrinsic evidence presented by Defendants in this case is unpersuasive. Regarding Mr. Hansen's deposition, this Court and the Federal Circuit have found that the testimony of a named inventor has little relevance in claim construction. *See Super Interconnect Techs. LLC v. Huawei Device Co.*, 2020 U.S. Dist. LEXIS 1672, *44 (E.D. Tex. Jan. 6, 2020) (Payne, J.) (concluding "testimony of named inventors is of little, if any, relevance in . . . claim construction proceedings.") (citing *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1346-47 (Fed. Cir. 2008) (stating that inventor testimony is "limited by the fact that an inventor understands the invention but may not understand the claims, which are typically drafted by the attorney prosecuting the patent application"). Similarly, the *Estech* documents cited by Defendants are not persuasive, because those documents do not address the term "hub" as used in the asserted claims.

Defendants also cite the Newton's Telecom Dictionary, which states that "[h]ubs aren't switches, as they have very little intelligence, if any, and don't set up transmission paths." (Dkt. No. 295-6 at 4-5, Dkt. No. 295-7 at 4; *see also* Dkt. No. 295-8 at 4). When relying on a dictionary, the "court must ensure that any reliance on dictionaries accords with the intrinsic evidence: the claims themselves, the specification, and the prosecution history." *Free Motion Fitness, Inc. v. Cybex Int'l*, 423 F.3d 1343, 1348 (Fed. Cir. 2005). Here, the Court finds that the Newton's

Telecom Dictionary contradicts the prosecution history, which shows that a person of ordinary skill in the art, at the time of the invention, would have understood that the term "hub" includes switches. Additionally, Plaintiff provides extrinsic evidence that is consistent with this understanding of the term "hub." For example, the fourth edition of the Microsoft Computer Dictionary defines a "hub" as follows:

> **hub** *n.* In a network, a device joining communication lines at a central location, providing a common connection to all devices on the network. The term is an analogy to the hub of a wheel. *See also* active hub, switching hub.

Dkt. No. 292-3 at 7 (highlight added).

> **switching hub** *n.* A central device (switch) that connects separate communication lines in a network and routes messages and packets among the computers on the network. The switch functions as a hub, or PBX, for the network. *See also* hub, packet (definition 1), PBX, switch (definition 3), switched Ethernet, switched network.

Dkt. No. 292-3 at 6 (highlight added). Thus, the extrinsic evidence cited by Plaintiff is consistent with the intrinsic evidence, and indicates that a person of ordinary skill in the art would understand that the term "hub," as recited in the claims, may include a switch. Accordingly, the Court rejects Defendants' construction, because the record does not support excluding switch from the scope of the term "hub."

2. Court's Construction

For the reasons set forth above, the term **"hub"** is given its **plain and ordinary meaning.**

C. "throttling"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"throttling"	Plain and ordinary meaning; no construction necessary.	"the activity or process of limiting the bandwidth available to users of an electronic communication system"

1. Analysis

The term "throttling" appears in Asserted Claims 29, 35, 36, 37, 38, 39, 40, and 41 of the '684 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. Defendants argue that "throttling" requires limiting bandwidth to effectively reduce data flow or data transfer.[5]

Defendants acknowledge that the longer phrase "sufficiently throttling the data sent from the workstation to the telephone to increase a rate of transfer of the audio information during the communicating step" was previously construed by the Court. Defendants contend that neither the individual term "throttling," nor the particular dispute present in this case has been addressed by this (or any other) Court. (Dkt. No. 295 at 17). According to Defendants, the Court previously found that the longer phrase "sufficiently throttling…" was broader than "reducing the number of data packets." *Id.* (citing *Estech Systems Inc. v. Target Corporation*, Case No. 2:20-cv-00123-JRG-RSP (Lead Case), Claim Construction Memorandum Opinion and Order (Dkt. No. 159) at 23 (E.D. Tex. Mar. 21, 2021)).

Defendants argue that "throttling" requires limiting bandwidth to effectively reduce data flow or data transfer. (Dkt. No. 295 at 18-19) (citing '684 Patent at 2:11–30, 13:17–49, 19:4–19, 19:36–52). Defendants assert that Plaintiff intends to read "throttling" out of the claims with its

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[5] The parties' arguments for this disputed term can be found in Plaintiff's Opening Claim Construction Brief (Docket No. 292 at 12-15); Defendants' Responsive Claim Construction Brief (Docket No. 295 at 17-24); and Plaintiff's Reply Claim Construction Brief (Docket No. 304 at 4-7).

"plain and ordinary meaning." *Id.* at 19. Defendants state that they understand Plaintiff to contend that as long as there is an increase in the rate of transfer of audio information, throttling has occurred. *Id.*

Defendants also argue that Plaintiff agreed during the *Markman* Hearing in *Estech Systems Inc. v. Carvana LLC*, Case No. 2:21-cv-00482-JRG-RSP, that "the plain and ordinary meaning of 'throttling' would be limiting the data sent from the workstation to the telephone." (Dkt. No. 295 at 20) (citing *Markman Hearing Transcript*, 15:24–16:7 (E.D. Tex. Dec. 13, 2022)). Defendants state that they do not disagree that if there is enough throttling of the data sent from the workstation to the telephone, this may make room for an increase in the rate of transfer of audio information from the telephone to the multimedia server, but argue that the converse is not necessarily true. (Dkt. No. 295 at 21-22) (citing '684 Patent at 4:44–45, 14:30–33, 19:33–35).

Defendants further contend that Plaintiff's additional arguments in response to patent office rejections in the *ex parte* reexamination also illuminate the claim construction issues in this case. (Dkt. No. 295 at 20). Defendants argue that in the *ex parte* reexamination, Plaintiff argued against a proposed combination of references as failing to "reduce the amount of data transmitted 'from the workstation to the telephone' and/or reduce the rate at which data is transmitted 'from the workstation to the telephone.'" *Id.* at 20-21 (citing Dkt. No. 295-11 at 6-7). According to Defendants, Plaintiff distinguished the prior art based on the location of the throttling algorithm (*i.e.*, in the network node), and confirmed that throttling must occur in the telephone. Dkt. No. 295 at 21.

Defendants also argue that during prosecution of the '684 Patent, the patentees made clear that "throttling" involved limiting the rate of transfer of data (*i.e.*, sending less data in a particular time). Defendants contend that the patentees distinguished a prior art reference by saying that "if

there would be any throttling [in the prior art reference], it would be of the rate of transfer of the audio information [as opposed to the data from the workstation]." *Id.* at 22 (citing Dkt. No. 295-9 at 20). Defendants further argue that as recently as September 27, 2022, Plaintiff argued in the *ex parte* reexamination of the '684 Patent that "throttling" resulted in "bandwidth savings." (Dkt. No. 295 at 23) (citing Dkt. No. 295-2 at 13-14). Defendants contend that Plaintiff argued that the prior art did not control the amount/rate of data "sent from the workstation to the telephone." (Dkt. No. 295 at 23) (citing Dkt. No. 295-2 at 15).

The plain language of the claim requires "throttling" the "data sent from the workstation to the telephone," which requires more than merely an increase in the rate of audio information. Indeed, as Plaintiff argued in the *ex parte* reexamination of the '684 Patent, "'throttling the data sent from the workstation to the telephone.' … means reducing the amount of data transmitted 'from the workstation to the telephone' and/or reducing the rate at which data is transmitted 'from the workstation to the telephone.'" Dkt. No. 295-11 at 6 (citing '684 Patent, Claim 29); *see also*, Dkt. No. 295-2 at 15 ("[The Prior art's] algorithm does <u>not</u> enable the network node to control the amount of data transmitted <u>to the network node</u> and/or the rate at which data is transmitted <u>to the network node</u>.") (emphasis in original). Accordingly, a person of ordinary skill in the art would understand "throttling the data" means "reducing the amount or rate of data transmitted."

The specification confirms this understanding by disclosing an information handling system in which data from workstation 106 is sent to data server 104 through telephone 105 and hub 103. Audio information (e.g., voice data) from telephone 105 is transferred to IP Server 101 via hub 103.

Fig. 1
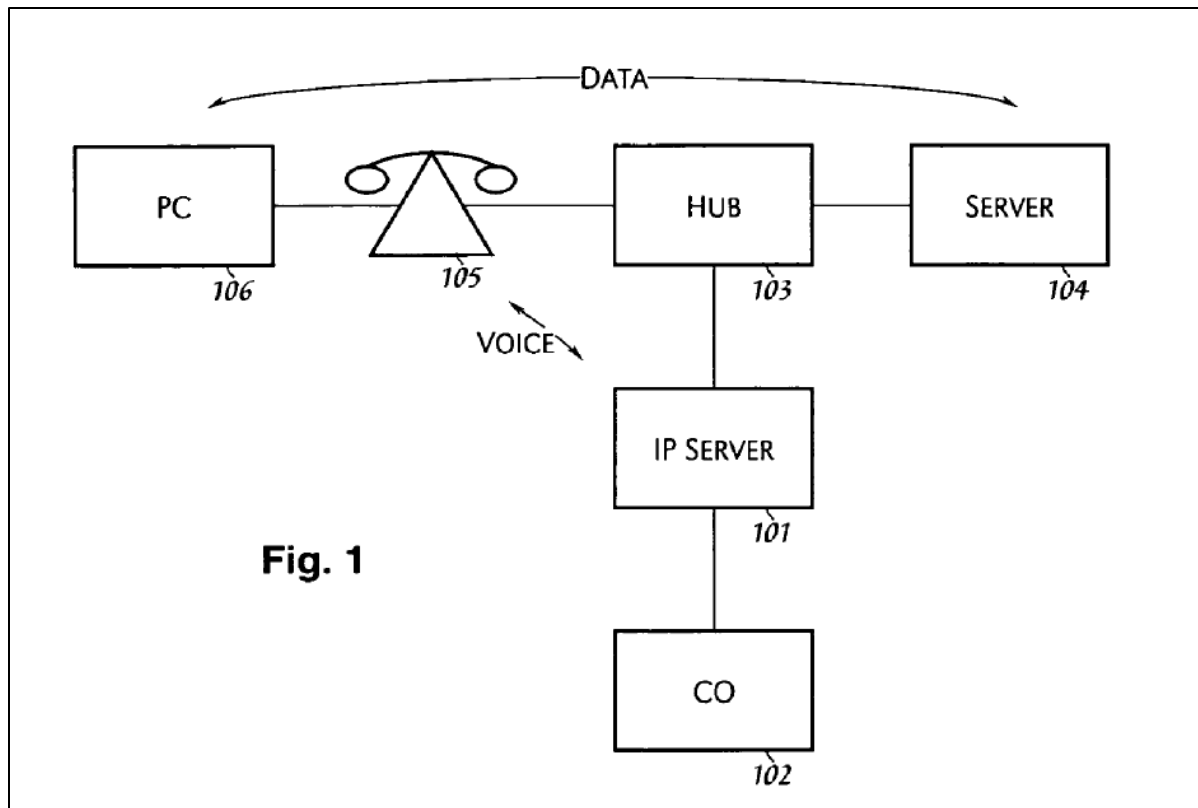
'684 Patent at Figure 1. The specification states that the disclosed system "permits the IP telephony

device 105 to throttle the data to/from the workstation 106." '684 Patent at 4:44–46. The purpose

of throttling is to limit data flow from the workstation (106 (labeled as a PC in Figure 1)) to a data

server (104) (through the telephone), which allows an increase in the amount of data flow between

the telephone (105) and the multimedia server (101). For example, the specification states the

following:

> More specifically, an IP telephony device will contain two separate
> media access controllers ("MACs") configured to provide a two-
> port, layer 2 Ethernet switch. This approach permits one MAC to be
> connected to the network, while the other MAC is dedicated to a
> connected network device. This allows all traffic flowing between
> MACs to be manipulated by a hardware/software approach within
> the IP telephony device. The quality of service algorithm of the
> present invention uses this configuration *to restrict data traffic
> to/from the network device* during peak traffic conditions, thus
> providing increased multimedia traffic bandwidth when needed.

'684 Patent at 2:19–30 (emphasis added), *see also, id.* at 13:17–49. Likewise, the patentees argued

during prosecution that there must be "throttling" of some type of data. Specifically, in distinguishing the prior art, the patentees argued that "the most that [the prior art] teaches or suggests is that if there would be any throttling, it would be of the rate of transfer of the audio information and not throttling of other types of data." (Dkt. No. 295-9 at 20).

In summary, the method recites the step of "sufficiently throttling the data sent from the workstation to the telephone to increase a rate of transfer of the audio information during the communicating step." In the context of the surrounding claim language and intrinsic evidence, a person of ordinary skill in the art would understand the term "throttling the data" to mean "reducing the amount or rate of data transmitted."

Turning to Defendants' construction, the Court finds that it introduces unnecessary ambiguity into the claims. The claims do not recite "an electronic communications systems [sic]." Rather, the preamble of independent Claims 29, 36, and 37 recite "an information handling system." Defendants' construction also requires "limiting bandwidth available to users." The claims do not recite a user, or multiple users. As discussed above, "throttling" relates to "the data sent from the workstation to the telephone." The claims do not require that throttling impacts the bandwidth available to "users."

Defendants' limitations also do not find support in the specification. Instead, Defendants' construction is copied directly from the Merriam-Webster Online Dictionary. (Dkt. No. 295 at 23) (citing Dkt. No. 295-7 at 5). Although courts can "rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1322-23 (Fed. Cir. 2005) (quoting *Vitronics Corp. v. Conceptronic*, 90 F.3d 1576, 1584 n.6 (Fed. Cir. 1996)) (emphasis added). The "court must ensure that any reliance on dictionaries accords

with the intrinsic evidence: the claims themselves, the specification, and the prosecution history."

Free Motion Fitness, Inc. v. Cybex Int'l, 423 F.3d 1343, 1348 (Fed. Cir. 2005). Because

Defendants' construction introduces unnecessary ambiguity into the claim language, it is not in

accordance with the intrinsic evidence.

Moreover, Defendants do not consider the term "throttling" in the context of the

surrounding claim language. As the Federal Circuit has repeatedly held, claim construction begins

with the language of the claims themselves. *Skedco, Inc. v. Strategic Operations, Inc.*, 685 F. App'x

956, 959 (Fed. Cir. 2017) ("Claim construction must begin and remain centered on the claim

language."). All of the Asserted Claims are method claims, and the claim language itself recites

the required limitations. As discussed above, the disputed term "throttling" is included in the step

of "sufficiently throttling the data sent from the workstation to the telephone to increase a rate of

transfer of the audio information during the communicating step" in independent Claims 29, 36,

and 37. The step itself requires the activity or process of "throttling" the "data sent from the

workstation to the telephone." To the extent that a party argues that "throttling" occurs as long as

there is an increase in the rate of transfer of audio information, the Court rejects that argument.

2. Court's Construction

For the reasons set forth above, the Court construes the term **"throttling the data"** to mean

"reducing the amount or rate of data transmitted."

D. The "circuitry" terms

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"circuitry for throttling data sent from the first network device" '684 Patent: Claim 1	Plain and ordinary meaning; no construction necessary.	**Function:** throttling data sent from the first network device **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54–15:13

"circuitry for monitoring an amount of data addressed to and received by the telephony device" '684 Patent: Claim 1	Plain and ordinary meaning; no construction necessary.	**Function:** motoring an amount of data addressed to and received by the telephony device **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54– 15:13 and in particular 11:54–12:19
"the throttling circuitry reduces a future amount of data" '684 Patent: Claims 1, 48, 51	Plain and ordinary meaning; no construction necessary.	**Function:** reducing a future amount of data **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54–15:13 and in particular 12:44–14:12
"circuitry for sending a congestion message" '684 Patent: Claims 3, 47	Plain and ordinary meaning; no construction necessary.	**Function:** further requires sending a congestion message to the multimedia server when the amount of data addressed to and received by the telephony device falls below the predetermined threshold **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54–15:13 and in particular 12:11–19
"circuitry for sending a throttling signal in response to receipt of the congestion message" '684 Patent: Claim 4	Plain and ordinary meaning; no construction necessary.	**Function:** sending a throttling signal in response to receipt of the congestion message **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54–15:13 and in particular 12:44–13:16
"throttling circuitry…throttles the future amount of data sent from the first network device in response to receipt of the throttling signal" '684 Patent: Claim 5	Plain and ordinary meaning; no construction necessary.	**Function:** sending a throttling signal in response to receipt of the congestion message **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54–15:13 and in particular 12:44–13:16

"throttling circuitry adjusts its level of throttling of the data in response to the mode level included in the throttling signal" '684 Patent: Claim 47	Plain and ordinary meaning; no construction necessary.	**Function:** adjusting a level of throttling of data in response to a mode level included in a throttling signal **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54–15:13 and in particular 13:4–14:29 and 14:47–15:7
"throttling circuitry…for sending a congestion message from a data output port when the amount of the information being received by the IP telephony device falls below a predetermined level." '684 Patent: Claim 47	Plain and ordinary meaning; no construction necessary.	**Function:** sending a congestion message from a data output port when the amount of the information being received by the IP telephony device falls below a predetermined level **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54–15:13 and in particular 12:11–19
"throttling circuitry throttles the future amount of data received at the input data port in response to receipt of a throttling signal at the input data port" '684 Patent: Claim 48	Plain and ordinary meaning; no construction necessary.	**Function:** throttling the future amount of data received at the input data port in response to receipt of a throttling signal at the input data port **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54– 15:13 and in particular 12:44–13:16
"circuitry for sufficiently throttling the data [received at the input data port]" '684 Patent: Claim 47	Plain and ordinary meaning; no construction necessary.	**Function:** sufficiently throttling data received at the input data port **Structure:** Telephone circuitry (e.g., DSP and jitter buffer) described in '684 Patent at Figs. 10, 11, 12A, 12B, 11:54-15:13

1. Analysis

As indicated in the chart above, the "circuitry" terms appear in various claims of the '684

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Patent. The parties dispute whether the ten "circuitry" terms require construction under 35 U.S.C.

§ 112 ¶ 6.[6] Defendants contend that each term should be governed by § 112 ¶ 6, and that their

proposed functions and structures should be adopted.

i.   Rebuttable Presumption

Here, there is a rebuttable presumption that § 112 ¶ 6 does not apply because the claims do

not recite the word "means." Therefore, the analysis proceeds in two steps. First, the Court must

determine whether the phrase is in means-plus-function form pursuant to 35 U.S.C. § 112(f). *See*

Robert Bosch, LLC v. Snap-On Inc., 769 F.3d 1094, 1097 (Fed. Cir. 2014). If the Court determines

that the phrase recites a means-plus-function limitation, then the Court proceeds to the next step

and attempts "to construe the disputed claim term by identifying the corresponding structure,

material, or acts described in the specification to which the term will be limited."

ii.   The Claims are Not Subject to § 112 ¶ 6.

Defendants argue that in a post-*Williamson* analysis of "circuitry," the strong presumption

against construing "circuitry for . . ." under § 112 ¶ 6 has been discarded in favor of a more relaxed

standard of whether a person of ordinary skill in the art would understand the term "circuitry" as

meaning a specific structure. (Dkt. No. 295 at 26) (citing *Williamson*, 792 F.3d at 1349).

Defendants further argue the Federal Circuit has not analyzed "circuitry for . . ." under a post-

Williamson context with the more relaxed framework. (Dkt. No. 295 at 27). Defendants' expert,

Dr. Shukri Souri, opines that a POSITA would interpret each "circuitry" term as failing to convey

definite meaning as to what it is that performs the corresponding function of the claim term. (Dkt.

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[6] The parties' arguments for this disputed term can be found in Plaintiff's Opening Claim
Construction Brief (Docket No. 292 at 8-10); Defendants' Responsive Claim Construction Brief
(Docket No. 295 at 24-29); and Plaintiff's Reply Claim Construction Brief (Docket No. 304 at 7-
9).

No. 295 at 28) (citing Dkt. No. 295-10 at ¶¶22–28). Defendants contend that while a POSITA could envision a number of different forms of circuitry that could accomplish this function, none are claimed. (Dkt. No. 295 at 28).

The Asserted Claims do not recite the word "means," and Defendants have not overcome the rebuttable presumption that § 112 ¶ 6 does not apply. The Federal Circuit has repeatedly held that "circuitry" connotes structure to those in the electronic arts, and it is not subject to 35 U.S.C. § 112 ¶ 6 when coupled with a description of the circuit's operation. *Mass. Inst. of Tech. & Elecs. for Imaging, Inc. v. Abacus Software*, 462 F.3d 1344, 1355-56 (Fed. Cir. 2006) ("[T]he term 'circuitry,' by itself, connotes structure…. The claim language here … adds further structure by describing the operation of the circuit[, including] [t]he circuit's input …; its objective …; and its output… This description of the operation of the circuit is sufficient to avoid 112 ¶ 6"); *Apex Inc. v. Raritan Comp., Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003) ("[W]e hold that the terms 'first interface circuit' and 'second interface circuit' are not means-plus-function limitations.").

For example, in *Linear Technology Corp. v. Impala Linear Corp.*, 379 F.3d 1311 (Fed. Cir. 2004), the Federal Circuit reasoned that the technical dictionaries "plainly indicate that the term 'circuit' connotes structure," and "[t]hus, when the structure-connoting term 'circuit' is coupled with a description of the circuit's operation, sufficient structural meaning generally will be conveyed to persons of ordinary skill in the art, and § 112 ¶ 6 presumptively will not apply." *Id*. at 1320. After analyzing the claims at issue, the Federal Circuit "h[e]ld that because the term 'circuit' is used in each of the disputed limitations … with a recitation of the respective circuit's operation in sufficient detail to suggest structure to persons of ordinary skill in the art, the 'circuit' and 'circuitry' limitations of such claims are not means-plus-function limitations subject to 35 U.S.C. § 112 ¶ 6." Id. at 1320-21. Since *Linear*, the Federal Circuit has confirmed that "circuit" /

"circuitry" connotes sufficient structure. *See, e.g.*, *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1365 (Fed. Cir. 2013) (The claim's description of "an input to the circuit …, a straightforward function …, and an output … is sufficient structure in the context of the claimed invention to avoid the ambit of means-plus-function claiming.");

Here, the context of the claims confirm the structural nature of the claimed "circuitry." For example, Claim 1 recites a "hub," "a multimedia server," "a telephony device," and "a first network device." The claim further recites that the "telephony device" includes "circuitry for throttling data sent from the first network device," and that "the throttling circuitry reduces a future amount of data from being transferred from the first network device if the amount of data addressed to and received by the telephony device falls below a predetermined threshold." Claim 1 also recites "circuitry for monitoring an amount of data addressed to and received by the telephony device."

By reciting the objectives of the "circuitry," and how the circuitry operates within the context of the claimed invention, the claim language connotes sufficiently definite structure to one of skill in the art. *See, e.g., Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1301 (Fed. Cir. 2014) (finding "heuristic [for performing a function]" to be sufficiently definite structure because the patent described the operation and objectives of the heuristic); *Collaborative Agreements, LLC v. Adobe Sys.*, No. 15-cv-03853-EMC, 2015 U.S. Dist. LEXIS 161809, at *11-*24 (N.D. Cal. Dec. 2, 2015) (determining "code segment [for performing a function]" to be sufficiently definite structure because the claim described the operation of the code segment); *Finjan, Inc. v. Proofpoint, Inc.*, No. 13-cv-05808-HSG, 2015 U.S. Dist. LEXIS 162504, at *31-*32 (N.D. Cal. Dec. 3, 2015) (determining "processor [for performing a function]" to be sufficiently definite structure because the claim described how the processor functions with the other claim

components). Accordingly, the "circuitry" terms do not invoke § 112 ¶ 6.

The specification further supports this understanding of the claim terms. Figure 8 illustrates

a block diagram of a telephony device:
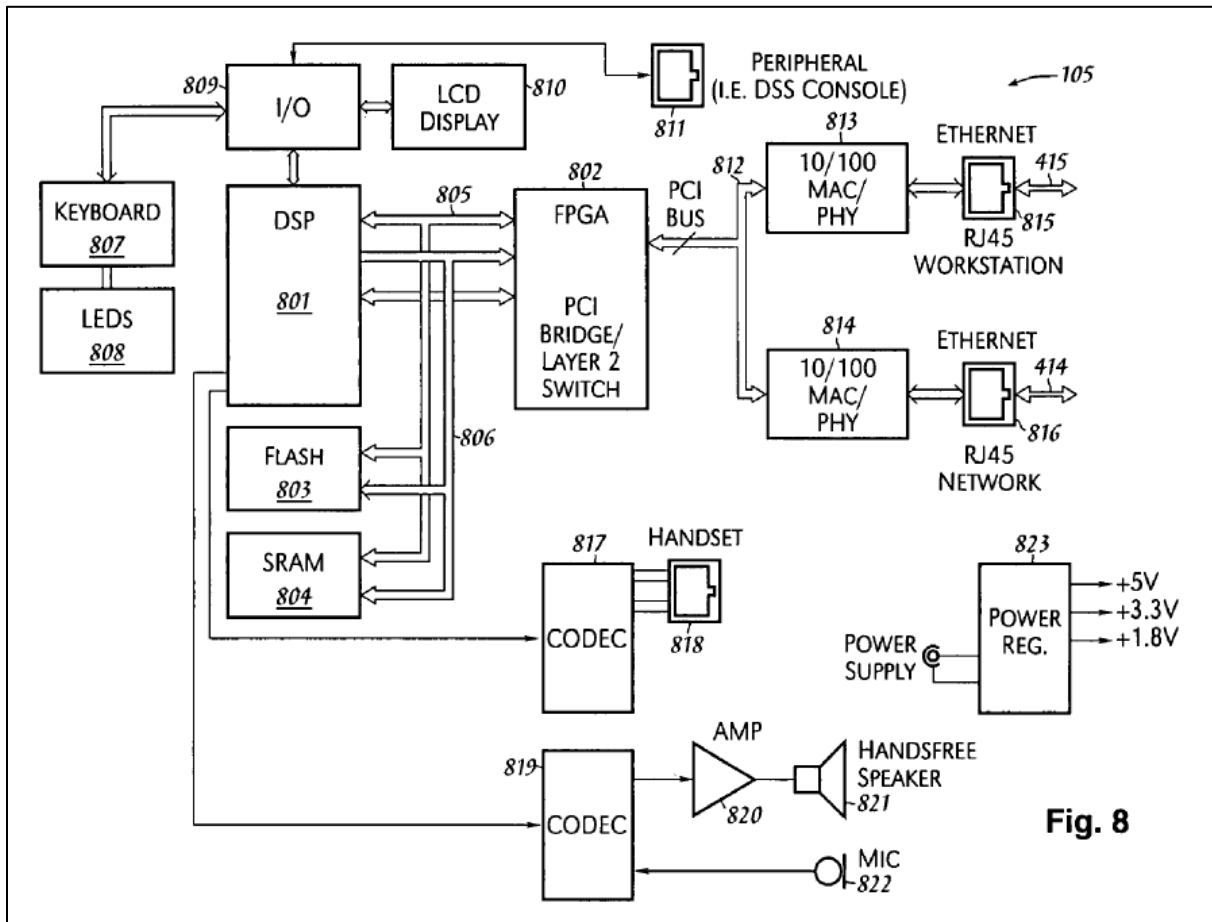
'684 Patent at Figure 8. As Defendants' expert opines, the specification "provides for a number of

different instances of this circuitry, including at 11:54-15:13, which describe, for example, then

existing Texas Instrument 5402 DSPs and other general DSP chips." Dkt. No. 295-10 at ¶ 25. Dr.

Souri further states that "[s]uch chips (and their capabilities) would have been known to those

skilled in the relevant art, and as such the disclosure of these particular and general DSPs to

perform the required function would be sufficient for a POSITA to make and use the subject matter

of the portion of each claim I was asked to review." *Id.* Accordingly, a person of ordinary skill in

the art would understand that the circuitry recited in the claims and described in the specification, would have sufficiently definite meaning as the name for a structure. Similar to the court's conclusion in *VR Optics, LLC v. Peloton Interactive, Inc.*, the placement of "telephony device" including circuitry alongside and in the same format as these other structural terms highlights that the patent is using the terms to connote a known structure rather than as a nonce substitute for the word "means." 345 F. Supp. 3d 394, 410 (S.D.N.Y. 2018). Accordingly, the Court rejects Defendants' position and finds that the "circuitry" terms are not governed by § 112 ¶ 6, and that they should be given their plain and ordinary meaning.

2. Court's Construction

For the reasons set forth above, the "circuity" terms are given their **plain and ordinary meaning.**

E. "means for sending a request from the first LAN to the second LAN over the WAN to establish a connection between the first LAN and the second LAN in response to selection of a voice mail access input and selection of a direct station select input at a telephone within the first LAN"

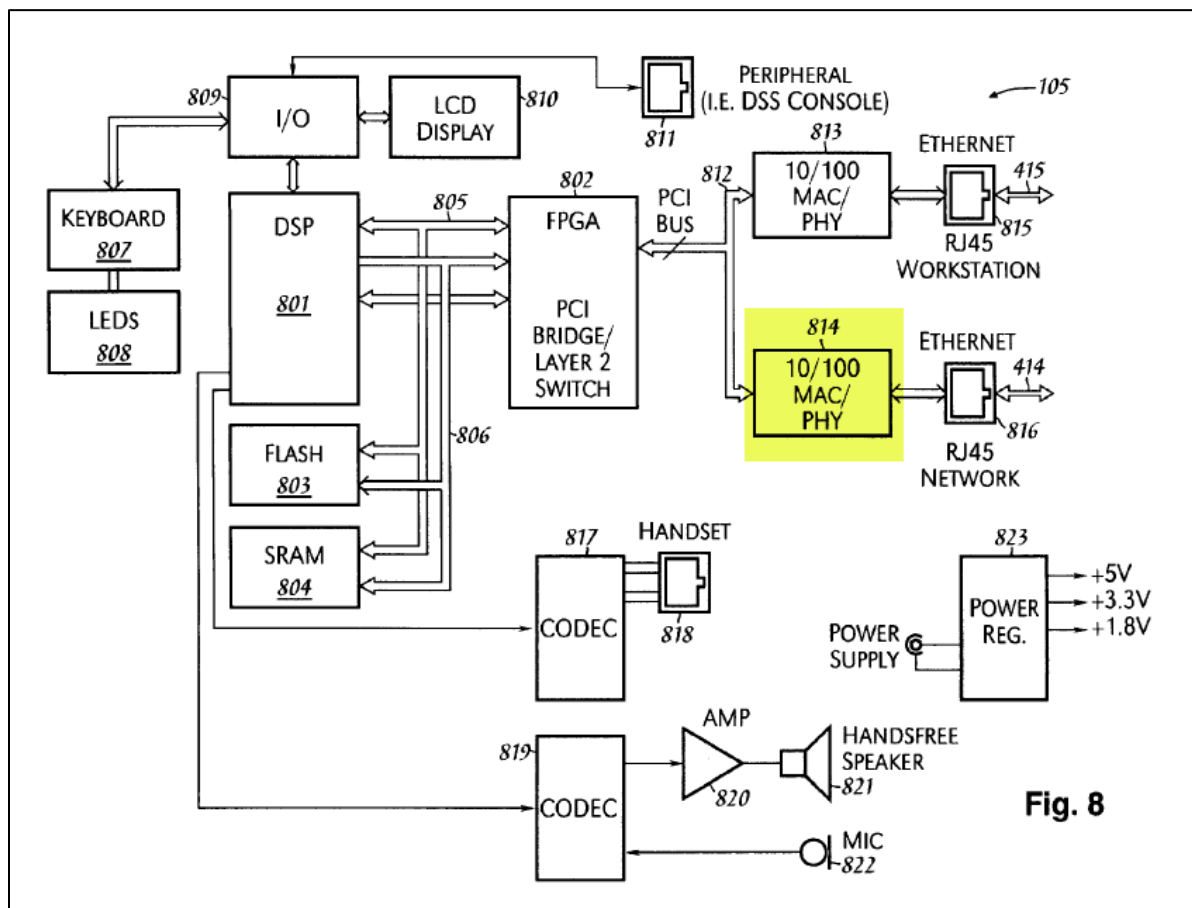| Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"means for sending a request from the first LAN to the second LAN over the WAN to establish a connection between the first LAN and the second LAN in response to selection of a voice mail access input and selection of a direct station select input at a telephone within the first LAN"	**Function:** sending a request **Structure:** network controller, or equivalents thereof	**Function:** sending a request from the first LAN to the second LAN over the WAN to establish a connection between the first LAN and the second LAN in response to selection of a voice mail access input and selection of a direct station select input at a telephone within the first LAN **Structure:** Circuitry and algorithms described at '699 Patent at Fig. 12 and 11:64–12:14

1. Analysis

The phrase "means for sending a request from the first LAN to the second LAN over the

WAN to establish a connection between the first LAN and the second LAN in response to selection of a voice mail access input and selection of a direct station select input at a telephone within the first LAN" appears in Asserted Claim 4 of the '699 Patent. The parties agree that the phrase is subject to § 112 ¶ 6. The parties disagree over the corresponding function and structure.[7]

The disputed phrase uses the word "means" and specifies a function, thus the Court presumes that the patentees intended to invoke the statutory mandates for means-plus-function clauses. *York Prods. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1574 (Fed. Cir. 1996) ("In determining whether to apply the statutory procedures of section 112, ¶ 6, the use of the word 'means' triggers a presumption that the inventor used this term advisedly to invoke the statutory mandates for means-plus-function clauses."). Furthermore, the parties agree that the term is subject to § 112, ¶ 6. Accordingly, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6.

"The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). "The court must construe the function of a means-plus-function limitation to include the limitations contained in the claim language, and only those limitations." *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002) (citation omitted). The Court finds that the recited function is "sending a request from the first LAN to the second LAN over the WAN to establish a connection between the first LAN and the second LAN in response to selection of a voice mail access input and selection of a direct station select input at a telephone within the first LAN."

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[7] The parties' arguments for this disputed term can be found in Plaintiff's Opening Claim Construction Brief (Docket No. 292 at 22-25); Defendants' Responsive Claim Construction Brief (Docket No. 295 at 29-32); and Plaintiff's Reply Claim Construction Brief (Docket No. 304 at 9-10).

Having determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Medtronic*, 248 F.3d at 1311. The parties initially disagreed on the corresponding structure. However, during the claim construction hearing the parties agreed that the corresponding "circuitry" or "network controller" disclosed in the specification is Media Access Control device 814. (Dkt. No. 311 at 31:19-32:1 (Hearing Tr.)). The Court agrees. Referring to Figure 8, the specification states the following regarding Media Access Control device 814:


Fig. 8

Devices 813, 814 perform the Media Access Control and the PHYsical layer functions. Devices 813, 814 communicate to DSP 801 via a standard PCI bus 812, and communicate to the LAN via post-transformer coupled RJ-45 connections 815, 816. Devices 813, 814 can contain FIFOs to minimize lost packets during traffic peaks. Per the PCI bus mastering specification, devices 813, 814 take control of the buses 805, 806 and direct memory access (DMA) data

> directly to SRAM 804. Conversely, DSP 801 writes data to be sent
> into the SRAM 804 and the devices 813, 814 DMA the data via the
> PCI bus 812 to the LAN.

'699 Patent at 9:54–64, Figure 8 (highlight added). Plaintiff further agreed during the claim

construction hearing that the specification discloses going from the physical layer to the

transmission layer in the various figures. (Dkt. No. 311 at 27:18–28:2, 29:7–13). For mean-plus-

function limitations implemented by computer software, the corresponding structure described in

the patent specification must include an algorithm for performing the function. *WMS Gaming Inc.*

v. Int'l Game Tech., 184 F.3d 1339, 1349 (Fed. Cir. 1999). In other words, the corresponding

structure is not a general purpose computer but rather the special purpose computer programmed

to perform the disclosed algorithm. *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d

1328, 1333 (Fed. Cir. 2008). Here, the algorithm disclosed for performing the function is illustrated

in Figures 11, 12, and 13, as steps 1102, 1201, and 1301, respectively.

Fig. 11

Fig. 12

Fig. 13
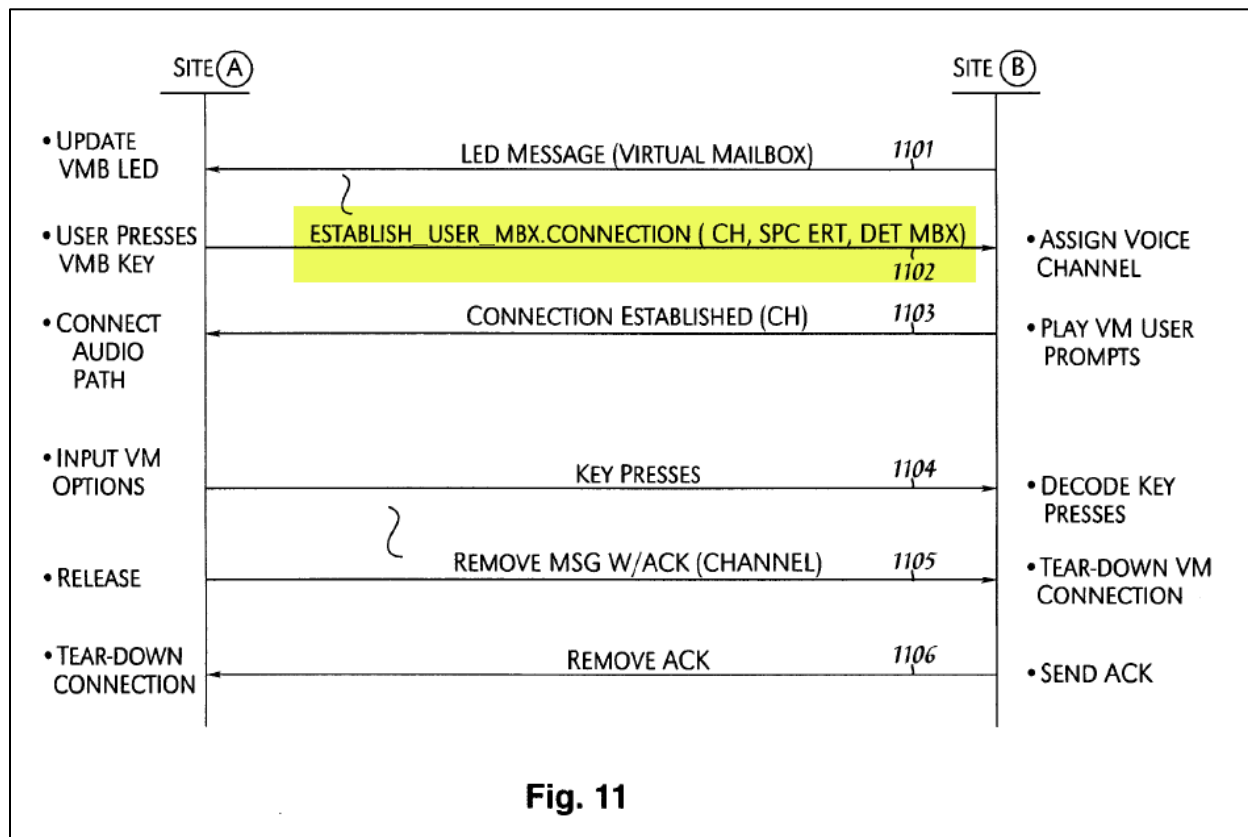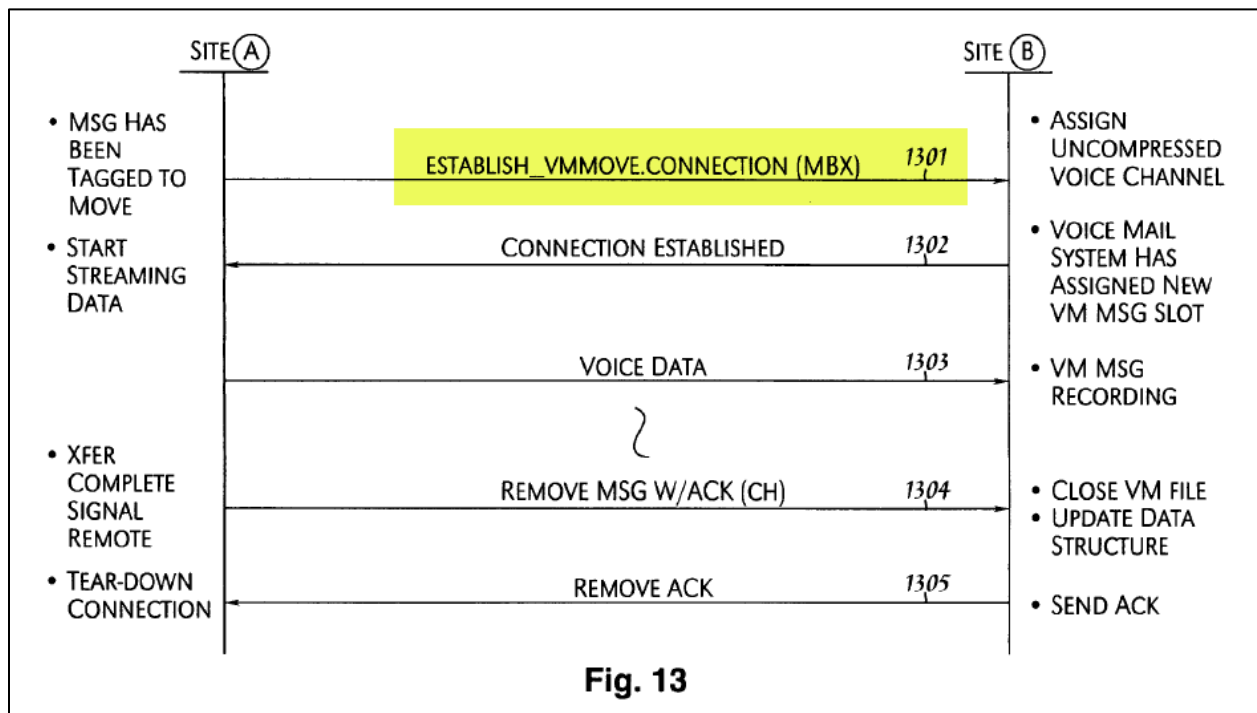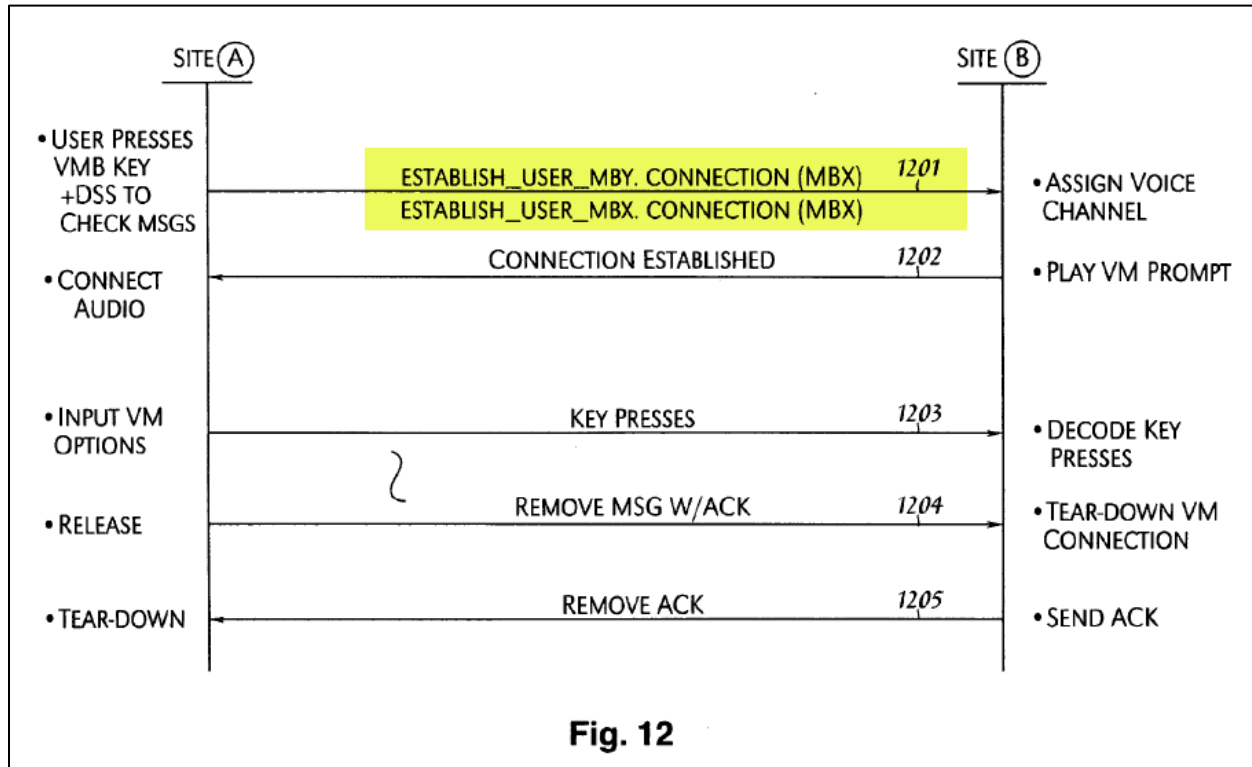
Figures 11-13 (highlight added). For example, the specification describes step 1102 in Figure 11

as follows:

> Referring to FIG. 11, there is illustrated an exemplary message flow between remote sites A and B. For example, site A could refer to the Dallas LAN 301 previously discussed, while site B could refer to the Detroit LAN 302, also discussed previously. As noted in FIG. 10, when a voice message is received within a remote voice mail box in site B, then an LED message 1101 will be sent from site B over the WAN 201 to the IP server 101 in site A. IP server 101 will then send a message to the IP telephone 105 to illuminate a voice mail box (VMB) LED 808 to indicate to that user that the remote mail box has a message. In the IP Series system, a number of inter-site messages are defined for specific tasks. Specifically, the VMB LED messages are issued based on system configuration. That is, if a system is configured to support a Virtual Mailbox, one of the required parameters is to enter the destination's extension number. This is handled by a Location-Extension combination (i.e., 73106). When a message is left in a mailbox with the Virtual Mailbox function enabled, the system sends the VMB LED message to the destination site. Once received by the destination site, the message is decoded and the appropriate LED is lit. Note that other types of indications or alerts can be utilized to inform a user that a remote message has been received, other than an LED light on a telephone. *After some time has passed, when the user has noticed the VMB LED and wishes to listen to that voice message, the user will press the VMB key on phone 105. This sends an Establish_User_MBX_Connection message 1102 from the IP server 101 in site A to the IP server 306 in site B.* When the Virtual Mailbox key on phone 105 is pressed, the call processing software evaluates the key type pressed. Once the Virtual Mailbox type is identified, call processing then checks the mailbox number associated with the key. If the key is associated with a remote site (as in this case), message 1102 if formatted and sent to the host site (where the voicemail message is actually stored). This message will include a Channel (CH) in which a connection will be established between sites A and B, the extension (EXT) of the source (SRC) of the message, which in this case is the extension number of telephone 105, and an identification of the destination (DEST) mail box (MBX) to which the message is directed within site B. In other words, the destination mail box will be the mail box that caused the illumination of the VMB LED 808 on phone 105.

'699 Patent at 10:43–11:18 (emphasis added). The specification provides a similar description for

the embodiment disclosed in Figures 12 and 13. *Id.* at 12:3–6 ("This will send an

Establish_User_MBX_Connection message 1201 to site B, which will assign a voice channel to be established between site A and B in response thereto."), 12:30–32 ("[T]he message has been tagged by the user for moving, which results in an Establish_ VMMove_Connection message 1301 being sent from site A to site B."). Accordingly, the Court finds that the corresponding structure is Media Access Control device 814 configured to perform step 1102 disclosed in Figure 11 and described at 11:2–4, step 1201 disclosed in Figure 12 and described at 12:3–6, or step 1301 disclosed in Figure 13 and described at12:31–32, and equivalents thereof.

The Court rejects the corresponding structure originally proposed by Defendants, because it includes structure beyond that necessary to perform the recited function. *Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1369-70 (Fed. Cir. 2001) ("Section 112 paragraph 6 does not 'permit incorporation of structure from the written description beyond that necessary to perform the claimed function.'") (quoting *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1257-58 (Fed. Cir. 1999)). Defendants identify "Circuitry and algorithms described at '699 Patent at Fig. 12 and 11:64-12:14" as the corresponding structure. Although Figure 12 depicts a request being sent from the first LAN to the second LAN ("ESTABLISH_USER_MBY.CONNECTION (MBX)" 1201), it also depicts additional messages that occur after the request is sent. Thus, Defendants' identification of Figure 12 in its entirety as corresponding structure is improper, because it includes structure beyond that necessary to perform the recited function. Similarly, Defendants' citation to column 11, line 64 through column 12, line 14 includes structure beyond that necessary to perform the recited function. *See id.* at 11:64–12:14 (disclosing assignment of voice channels, playing voice prompts to the user, the user inputting key press messages, and the process of tearing down the connection after the user is done listening to voicemail). Indeed, Defendants agreed that their proposed structure was over inclusive during the claim construction

hearing. (Dkt. No. 311 at 32:3-16).

Regarding Plaintiff's original construction, the Court finds that it improperly broadens the function of this claim term. A proper § 112 ¶ 6 analysis cannot omit claim language in the recited limitation. Instead, the entire claim limitation must be analyzed. Regarding the structure it originally proposed, Plaintiff argues that its "construction identifies the circuitry identified in the specification that is capable of performing the recited function." Dkt. No. 292 at 25. But the corresponding structure must also include the algorithm for performing the function. In other words, the corresponding structure in this instance is not a general purpose computer but rather the special purpose computer programmed to perform the disclosed algorithm. *Aristocrat,* 521 F.3d at 1333.

2.   Court's Construction

In light of the intrinsic evidence, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6, and construes the phrase "means for sending a request from the first LAN to the second LAN over the WAN to establish a connection between the first LAN and the second LAN in response to selection of a voice mail access input and selection of a direct station select input at a telephone within the first LAN" as follows:

Function: sending a request from the first LAN to the second LAN over the WAN to establish a connection between the first LAN and the second LAN in response to selection of a voice mail access input and selection of a direct station select input at a telephone within the first LAN.

Corresponding Structure: MAC 814 configured to perform step 1102 disclosed in Figure 11 and described at 11:2–4, step 1201 disclosed in Figure 12 and described at 12:3–6, or step 1301 disclosed in Figure 13 and described at12:31–32, and equivalents thereof.

F. "means for establishing an audio path over the connection between the voice mail box and the telephone"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"means for establishing an audio path over the connection between the voice mail box and the telephone"	**Function:** establishing an audio path over the connection between the voice mail box and the telephone **Structure:** One or more microprocessors specially programmed to send a connection established message, or equivalents thereof	**Function:** establishing an audio path over the connection between the voice mail box and the telephone **Structure:** Circuitry and algorithms described at Figs. 11–13 and 11:1–12:45

1. Analysis

The phrase "means for establishing an audio path over the connection between the voice mail box and the telephone" appears in Asserted Claim 4 of the '699 Patent. The parties agree that the phrase is subject to § 112 ¶ 6. The parties also agree on the recited function, but disagree over the corresponding structure.[8]
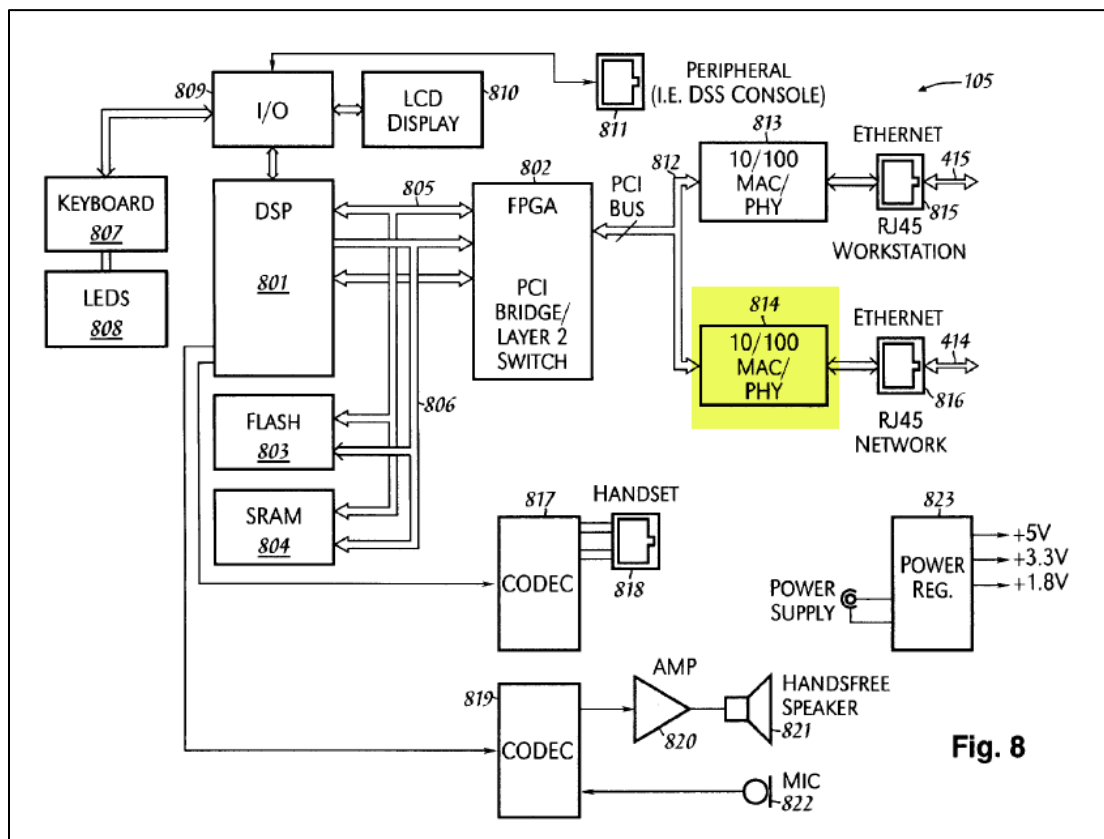
The disputed phrase uses the word "means" and specifies a function, thus the Court presumes that the patentees intended to invoke the statutory mandates for means-plus-function clauses. *York Prods. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1574 (Fed. Cir. 1996) ("In determining whether to apply the statutory procedures of section 112, ¶ 6, the use of the word 'means' triggers a presumption that the inventor used this term advisedly to invoke the statutory mandates for means-plus-function clauses."). Furthermore, the parties agree that the term is subject to § 112, ¶ 6. Accordingly, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6.

"The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys.,*

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[8] The parties' arguments for this disputed term can be found in Plaintiff's Opening Claim Construction Brief (Docket No. 292 at 25-27); Defendants' Responsive Claim Construction Brief (Docket No. 295 at 32-33); and Plaintiff's Reply Claim Construction Brief (Docket No. 304 at 11).

Inc., 248 F.3d 1303, 1311 (Fed. Cir. 2001). "The court must construe the function of a means-plus-function limitation to include the limitations contained in the claim language, and only those limitations." *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002) (citation omitted). The parties agree that the recited function is "establishing an audio path over the connection between the voice mail box and the telephone." The Court agrees.

Having determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Medtronic*, 248 F.3d at 1311. The parties initially disagreed on the corresponding structure. However, during the claim construction hearing the parties agreed that the corresponding "circuitry" or "microprocessor" disclosed in the specification is Media Access Control device 814. (Dkt. No. 311 at 31:19-32:1 (Hearing Tr.)). The Court agrees. Referring to Figure 8, the specification states the following regarding Media Access Control device 814:

Fig. 8

> Devices 813, 814 perform the Media Access Control and the PHYsical layer functions. Devices 813, 814 communicate to DSP 801 via a standard PCI bus 812, and communicate to the LAN via post-transformer coupled RJ-45 connections 815, 816. Devices 813, 814 can contain FIFOs to minimize lost packets during traffic peaks. Per the PCI bus mastering specification, devices 813, 814 take control of the buses 805, 806 and direct memory access (DMA) data directly to SRAM 804. Conversely, DSP 801 writes data to be sent into the SRAM 804 and the devices 813, 814 DMA the data via the PCI bus 812 to the LAN.

'699 Patent at 9:54–64, Figure 8 (highlight added). Plaintiff further agreed during the claim construction hearing that the specification discloses going from the physical layer to the transmission layer in the various figures. (Dkt. No. 311 at 27:18-28:2, 29:7-13). For mean-plus-function limitations implemented by computer software, the corresponding structure described in the patent specification must include an algorithm for performing the function. *WMS Gaming Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999). In other words, the corresponding structure is not a general purpose computer but rather the special purpose computer programmed to perform the disclosed algorithm. *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Here, the algorithm disclosed for performing the function is illustrated in Figures 11, 12, and 13, as steps 1103, 1202, and 1302, respectively.

Fig. 11

Fig. 12

Fig. 13
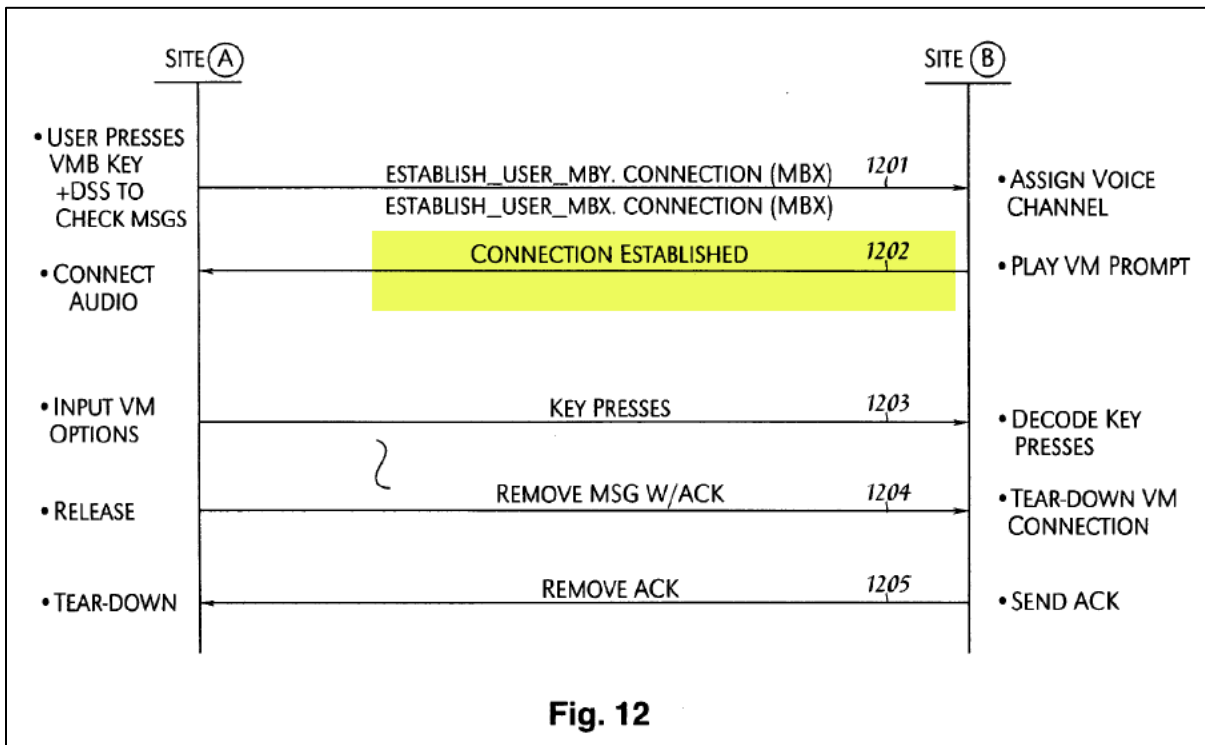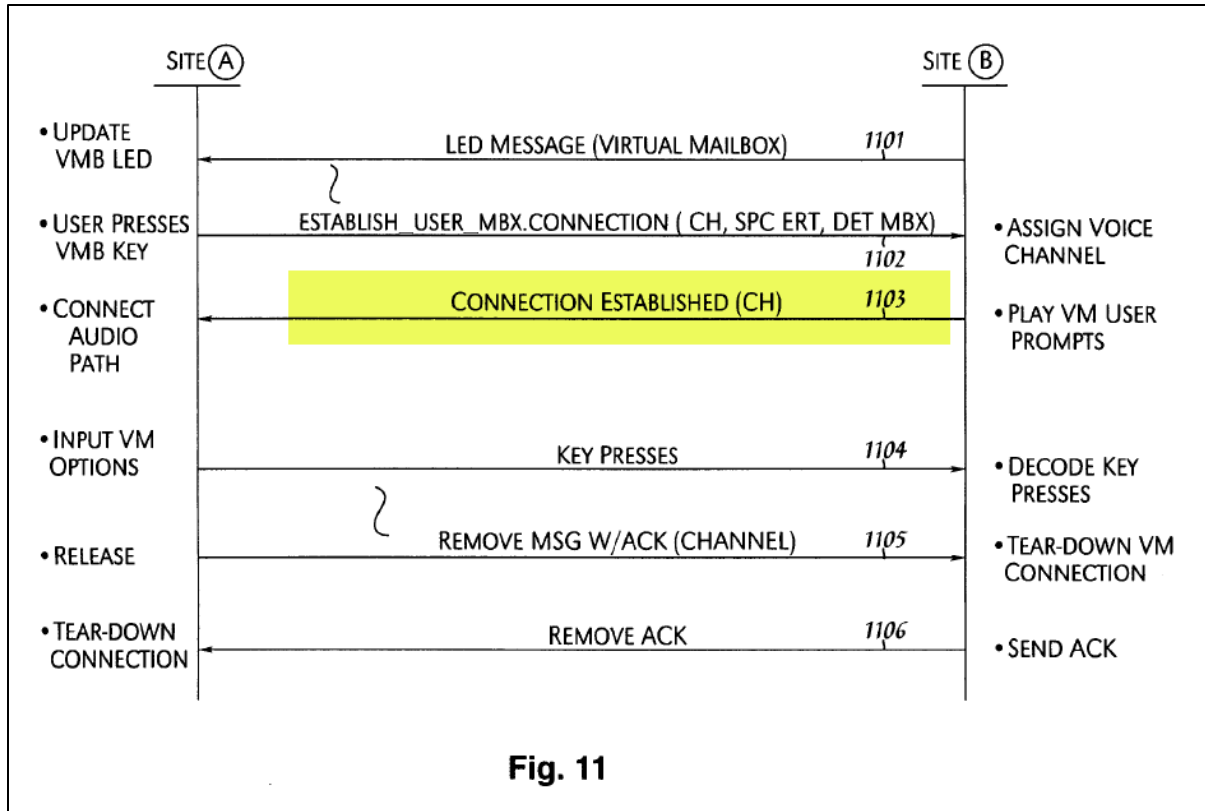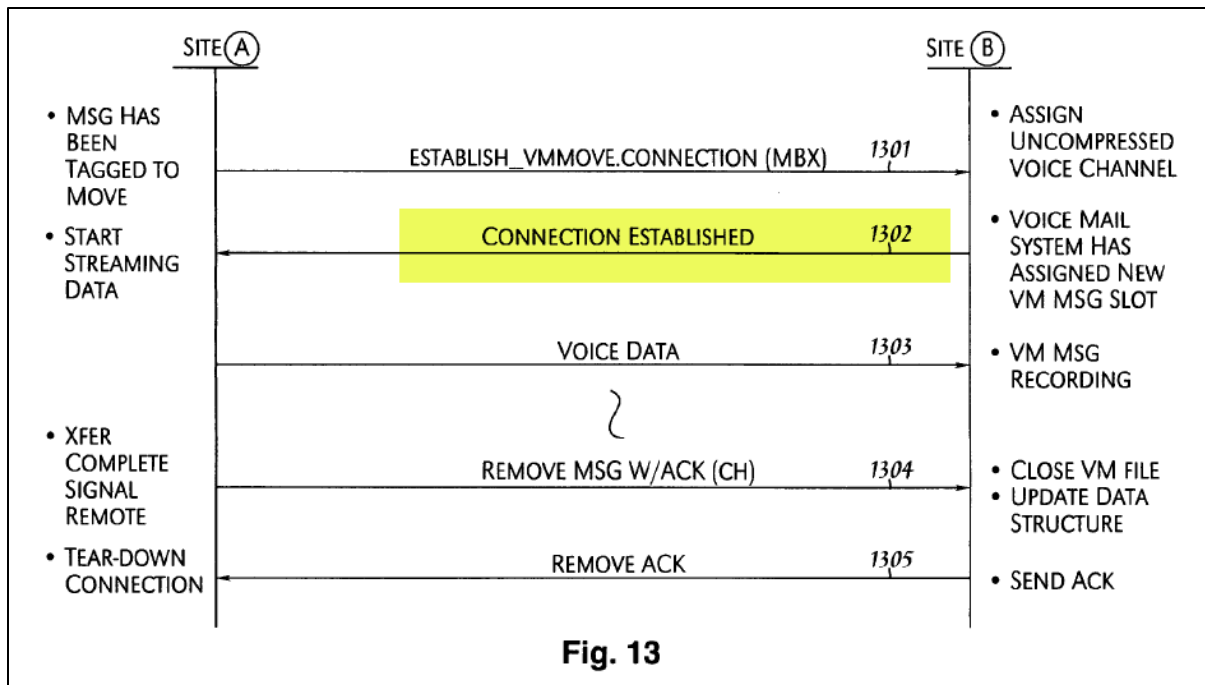
Figures 11-13 (highlight added). For example, the specification describes step 1103 in Figure 11

as follows:

> In response to message 1102, IP server 306 within site B will assign a voice channel to be established within the WAN 201 between sites A and B. There is a pool of speech compression channels available for use between any remote sites. Call processing software determines that a call is destined for a remote site and assigns a compression channel from the pool. Note that except for basic inter-cabinet signaling (i.e., LED lamp messages), a speech path is required in advance, before a call can be made. Once a channel is assigned, a message is sent to the destination site requesting a connection. The destination site will assign an available speech compression channel, then accept the request for connection. *A Connection Established message 1103 will be sent from site B to site A with the assigned channel, and site A will connect its IP server 101 to the established audio path to receive voice mail (VM) user prompt messages from site B.* As mentioned above, once a connection has been established between sites, call processing software treats the remote connection as though it was to a local user. That is, call processing checks to see if the mailbox number is valid, requests any password information then executes normal local voicemail processing. Once the connection has been established between sites, voicemail feature operation is identical to that of a local voicemail user. The same voice prompts normally sent to the local phone are routed to the assigned speech

> compression channel. Such message prompts are what is typically heard in current voice mail systems when one accesses their voice mail. As the user at site A listens to the voice mail user prompts, the user may input VM options in response to such prompts on the DTMF buttons of telephone 105. Such key presses 1104 are sent over the established connection 1103 to site B, which decodes these key presses. The decoding of the key presses will result in permitting the user at site A to select various options for listening, saving, deleting, forwarding, etc., the voice mail message left in the voice mail box at site B.

'699 Patent at 11:19–54 (emphasis added). The specification provides a similar description for the embodiment disclosed in Figures 12 and 13. '699 Patent at 12:6–9 ("A connection established message 1202 will then be sent to site A, and site B will begin playing voice mail prompts to the user 105 at site A."), 12:32–34 ("Site B will assign an uncompressed voice channel and respond with a Connection Established message 1302."). Accordingly, the Court finds that the corresponding structure is Media Access Control device 814 configured to perform step 1103 disclosed in Figure 11 and described at 11:31–35, step 1202 disclosed in Figure 12 and described at 12:6–9, or step 1302 disclosed in Figure 13 and described at 12:32–34, and equivalents thereof.

The Court rejects the corresponding structure originally proposed by Defendants, because it includes structure beyond that necessary to perform the recited function. *Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1369-70 (Fed. Cir. 2001) ("Section 112 paragraph 6 does not 'permit incorporation of structure from the written description beyond that necessary to perform the claimed function.'") (quoting *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1257-58 (Fed. Cir. 1999)). Defendants identify "Circuitry and algorithms described at Figs. 11–13 and 11:1–12:45" as the corresponding structure. Although Figures 11-13 depict a Connection Established message, they also depict additional messages that occur after the connection is established. Thus, Defendants' identification of Figures 11-13 in their entirety as corresponding structure is improper, because it includes structure beyond that necessary to perform the recited

function. Similarly, Defendants' citation to column 11, line 1 through column 12, line 45 includes structure beyond that necessary to perform the recited function. Indeed, Defendants agreed that their proposed structure was over inclusive during the claim construction hearing. (Dkt. No. 311 at 32:3-16).

Plaintiff's original construction failed to include the algorithm for performing the recited function. In other words, the corresponding structure in this instance is not a general purpose computer but rather the special purpose computer programmed to perform the disclosed algorithm. *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008).

2.   Court's Construction

In light of the intrinsic evidence, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6, and construes the phrase "means for establishing an audio path over the connection between the voice mail box and the telephone" as follows:

Function: establishing an audio path over the connection between the voice mail box and the telephone.

Corresponding Structure: MAC 814 configured to perform step 1103 disclosed in Figure 11 and described at 11:31–35, step 1202 disclosed in Figure 12 and described at 12:6–9, or step 1302 disclosed in Figure 13 and described at 12:32–34, and equivalents thereof.

G.   "means for playing a voice message stored in the voice mail box over a speaker in the telephone"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"means for playing a voice message stored in the voice mail box over a speaker in the telephone"	**Function:** playing a voice message stored in the voice mail box over a speaker in the telephone **Structure:** Digital-to-analog CODEC, or equivalents thereof	**Function:** playing a voice message stored in the voice mail box over a speaker in the telephone **Structure:** Circuitry and algorithms described at Figs. 11-13 and 11:1–12:45

1.   Analysis

The phrase "means for establishing an audio path over the connection between the voice mail box and the telephone" appears in Asserted Claim 4 of the '699 Patent. The parties agree that the phrase is subject to § 112 ¶ 6, and the recited function is "playing a voice message stored in the voice mail box over a speaker in the telephone."[9] During the claim construction hearing, the parties also agreed that the corresponding structure is CODEC 819. (Dkt. No. 311 at 35:3–23) (referring to Slide 51 of Plaintiff's presentation). The Court agrees because the specification identifies CODEC 819, amplifier 820, and speaker 821 as the corresponding structure for performing the recited function:

Fig. 8

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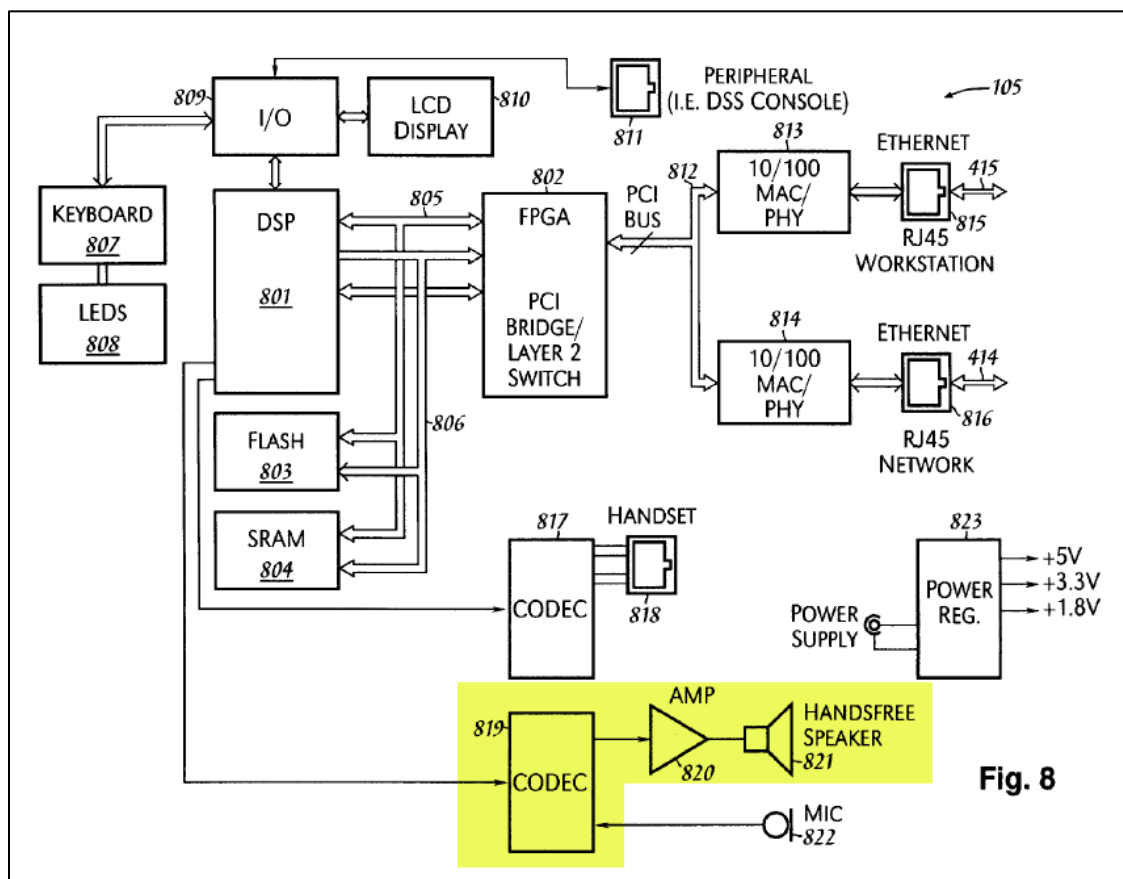
[9] The parties' arguments for this disputed term can be found in Plaintiff's Opening Claim Construction Brief (Docket No. 292 at 28-30); Defendants' Responsive Claim Construction Brief (Docket No. 295 at 33-34); and Plaintiff's Reply Claim Construction Brief (Docket No. 304 at 11).

> CODEC 817 and CODEC 819 perform analog to digital and digital to analog conversion of speech signals. CODEC 817 is connected to the handsets, speaker and microphone elements (not shown) via connector 818, while CODEC 819 is connected to the hands-free speaker 821 through amplifier 820, and to the hands-free microphone 822.

'699 Patent at 9:39–44, Figure 8 (highlight added). Accordingly, the Court adopts the parties' agreed construction.

2. Court's Construction

In light of the intrinsic evidence, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6, and construes the phrase "means for playing a voice message stored in the voice mail box over a speaker in the telephone" as follows:

Function: playing a voice message stored in the voice mail box over a speaker in the telephone.

Corresponding Structure: CODEC 819, amplifier 820, and speaker 821, and equivalents thereof.

V.   CONCLUSION

The Court adopts the constructions above for the disputed terms of the Asserted Patents. Furthermore, the parties should ensure that all testimony that relates to the terms addressed in this Order is constrained by the Court's reasoning. However, in the presence of the jury the parties should not expressly or implicitly refer to each other's claim construction positions and should not expressly refer to any portion of this Order that is not an actual construction adopted by the Court. The references to the claim construction process should be limited to informing the jury of the constructions adopted by the Court.

SIGNED this 28th day of March, 2023.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE